# The Line of Freezing and the Equation of State for Selected Liquid Alkanes

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We present the results of experimental investigation of selected liquid hydrocarbons PVT behaviour. The PVT data were measured by using the metallic bellows method with differential inductive sensor of linear shifts in the temperature range from 313 K to 413 K and pressure range from 0.1 to 245.2 MPa. The molecular structure was investigated by MoKα X-ray scattering method. The obtained data allow suggesting the equation of state. We calculated the volume jump on freezing line as a function of pressure, the first coordination number and the first coordination radius; we also obtained the relation of the equation of state parameters to micro-characteristics of investigated liquids.